From: 8064986673 To: USPTO Page: 5/15 Date: 2006/1/11 上午 11:38:22

Amendments to the Claims:

Listing of Claims:

Claim 1 (currently amended) A capacitive semiconductor pressure sensor comprising:

- a non-single-crystal-silicon-based substrate selected from the group consisting of glass
- 5 and quartz;
 - a conductive movable polysilicon diaphragm;
 - a polysilicon supporter positioned on the non-single-crystal-silicon-based substrate for fixing two ends of the polysilicon diaphragm and forming a scaled cavity between the polysilicon diaphragm and the non-single-crystal-silicon-based substrate;
- a stationary electrode <u>directly</u> positioned on the non-single-crystal-silicon-based substrate and below the polysilicon diaphragm, the stationary electrode and the polysilicon diaphragm constituting a plate capacitor; and
 - a thin film transistor (TFT) control circuit positioned on the non-single-crystal-silicon-based substrate and electrically connected to the plate capacitor.

Claim 2 (cancelled)

15

30

Claim 3 (previously presented) The capacitive semiconductor pressure sensor of claim

1 wherein the TFT control circuit is a low temperature polysilicon TFT control circuit.

Claim 4 (cancelled)

Claim 5 (previously presented) The capacitive semiconductor pressure sensor of claim

1 wherein the TFT control circuit is a high temperature polysilicon TFT control circuit.

Claim 6 (original) The capacitive semiconductor pressure sensor of claim 1 wherein the stationary electrode comprises aluminum (Al), titanium (Ti), platinum (Pt), or alloys.

Claim 7 (original) The capacitive semiconductor pressure sensor of claim 1 wherein

From: 8064986673 To: USPTO Page: 6/15 Date: 2006/1/11 上午 11:38:22

the polysilicon diaphragm and the polysilicon supporter are formed simultaneously.

Claim 8 (original) The capacitive semiconductor pressure sensor of claim 1 wherein the polysilicon diaphragm is a doped polysilicon diaphragm.

5

Claim 9 (original) The capacitive semiconductor pressure sensor of claim 1 wherein the non-single-crystal-silicon-based substrate further comprises a thin film transistor display region for displaying a variation of pressure detected by the capacitive semiconductor pressure sensor.

10

Claim 10 (currently amended) A capacitive semiconductor pressure sensor comprising:

an insulating substrate selected from the group consisting of glass and quartz;

a conductive movable diaphragm;

- a supporter positioned on the insulating substrate for fixing two ends of the diaphragm and forming a scaled cavity between the diaphragm and the insulating substrate;
 - a stationary electrode <u>directly</u> positioned on the insulating substrate and below the diaphragm; and
 - a control circuit electrically connected to the diaphragm and the stationary electrode.

20

- Claim 11 (original) The capacitive semiconductor pressure sensor of claim 10 wherein the stationary electrode comprises aluminum (Al), titanium (Ti), platinum (Pt), or alloys.
- 25 Claim 12 (original) The capacitive semiconductor pressure sensor of claim 10 wherein the diaphragm and the supporter are formed simultaneously.
 - Claim 13 (original) The capacitive semiconductor pressure sensor of claim 12 wherein the supporter comprises polysilicon.

30

Claim 14 (original) The capacitive semiconductor pressure sensor of claim 13 wherein the diaphragm comprises a doped polysilicon.

From: 8064986673 To: USPTO Page: 7/15 Date: 2006/1/11 上午 11:38:22

Claim 15 (original) The capacitive semiconductor pressure sensor of claim 10 wherein the diaphragm comprises a conductive material.

Claim 16 (cancelled)

5

Claim 17 (previously presented) The capacitive semiconductor pressure sensor of claim 10 wherein the control circuit is positioned on the insulating substrate and the control circuit comprises a low temperature polysilicon thin film transistor control circuit.

10

15

20

25

30

Claim 18 (cancelled)

Claim 19 (previously presented) The capacitive semiconductor pressure sensor of claim 10 wherein the control circuit is positioned on the insulating substrate and the control circuit comprises a high temperature polysilicon thin film transistor control circuit.

Claim 20 (original) The capacitive semiconductor pressure sensor of claim 10 wherein the control circuit is positioned on a printed circuit board (PCB) and is electrically connected to the stationary electrode and the diaphragm via a flexible printed circuit (FPC) board.

Claim 21 (original) The capacitive semiconductor pressure sensor of claim 10 wherein the control circuit is positioned on a flexible printed circuit (FPC) board, the control circuit being electrically connected to the stationary electrode and the diaphragm via the flexible printed circuit board.

Claim 22 (original) The capacitive semiconductor pressure sensor of claim 10 wherein the insulating substrate further comprises a thin film transistor display region for displaying a variation of pressure detected by the capacitive semiconductor pressure sensor.